Notes on Rare and Little Known Panamic Mollusks

by

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(Plate 4, Figures 11 to 16)

During the last five years I have engaged in extensive collecting in the Gulf of California, especially along the coast of northern Baja California. Almost every trip has brought to light one or more species previously reported only from the type locality, frequently 1,000 - 3,000 miles south of the stations to be discussed here.

These trips are usually in company with other collectors who will be mentioned in the text as various species and records are considered.

I have also had the opportunity to examine several lots of shells from the Gulf of Fonseca, El Salvador, and from the Chiapas and Oaxaca coasts of Mexico. These were sent to me through the courtesy of Captain Xavier Mendoza currently of Salina Cruz, Mexico. In the Salvador material were several examples of a species previously considered to range from Peru to Chile.

Mention is also made of a common California bivalve recently discovered in the Gulf of California.

Lioberus salvadoricus (Hertlein & Strong, 1946)

This small mytilid was originally described from Costa Rica but has more recently been reported from along the Sonora coast of Mexico.

Station: in 6-8 fathoms, five miles north of Punta San Felipe, Baja California. Lat. 31° 7'N.; Long. 114°46'W. March 1959. B. Campbell and D. Shasky.

The bottom in which we took this species is a thick mud that quickly clogs the dredge. It seems to be one of the few species living in this area, although valves of <u>Aequipecten palmeri</u> (Dall, 1897) were quite common.

Tivela stultorum Mawe, 1823

It is well known that in the northern Gulf of California there exists a cold water fauna that compares in many ways with that of the Pacific Coast of California and northern Baja California. To list here species that are common to both areas is not within the scope of this paper. It is mentioned merely to add another species common to both regions. <u>Tivela stultorum</u> is reported by Fitch to range only as far south as Magdalena Bay, but Oldroyd lists Socorro Island as its southern limit.

Station: intertidally at southwest end of Willard Island, San Luis Gonzaga Bay, Baja California. Lat. 29°49'N.; Long. 114°24'W. January 1, 1961. G. Sphon and D. Shasky.

Approximately 20 specimens were uncovered in a very small area. These ranged in size from $4\frac{1}{2}$ to 6 inches. Although it has been suggested that these might have been introduced here, it is difficult to reason why this rather isolated location in an already semi-isolated area would be chosen.

Diodora pusilla Berry, 1959 (Plate 4, fig. 11)

This small off-shore form has only recently been described from off Acapulco, Mexico. It is figured here for the first time.

Stations:

- in 40-80 fathoms, off the southwest end of Isla Montserrate, Gulf of California. Lat. 25°39'N.; Long. 111°05'W. September 1, 1960. Ariel Expedition, D. Shasky.
- in 20 fathoms, off Punta Final, San Luis Gonzaga Bay, Baja California. Lat. 29°47' N.; Long. 114°18'W. January 1961. B. Campbell, G. Sphon, and D. Shasky.

Thyca callista Berry, 1959 (Plate 4, fig. 12)

This very interesting form, parasitic on the starfish <u>Phataria unifascialis</u> Gray, was first taken by Leonard Bessom in 1954 while diving at San Carlos Bay, Guaymas, Sonora, Mexico. I collected a single specimen in an adjacent area in 1958.

Stations:

- Mazatlán, Sinaloa, Mexico. December 1959. James McLean.
- in 2¹/₂ fathoms, off Punta Diablo, Baja California. Lat. 24°18'N.; Long. 110°19'W. August 31, 1960. D. Shasky.

All specimens of this species taken to date have been off-shore in depths of 6-20 feet, although the starfish host is frequently seen at extreme low tides.

Mr. Bessom and I estimate that <u>Thyca cal-</u> <u>lista</u> occurs once on every 1,000-1,500 starfish examined.

Sinum grayi (Deshayes, 1843) (Plate 4, figs. 13, 14)

This magnificent deep water species has been reported only once north of Peru, and then it was supposed to have been taken living at San Pedro, California. I have grave doubts concerning the accuracy of the San Pedro record.

Stations:

- in 20-40 fathoms, Gulf of Fonseca, El Salvador. Lat. 13°15'N.; Long. 87°45'W. October 1960. X. Mendoza.
- 2. specimens brought in by the Guaymas shrimp fleet have recently been acquired by C. Zimmerman, R. Burch, and Dr. M. Keen. It is assumed these were all taken within the territorial waters of Mexico.

Lamellaria inflata (C. B. Adams, 1852)

Range: Panama

Stations:

- l. in l-l¹/₂ fathoms, in siftings, Puertecitos, Baja California. Lat. 30°25'N.; Long. 114° 39'W. June 1960. D. Shasky.
- in 10 fathoms, La Paz Bay, Baja California. Lat. 24°12'N.; Long. 110°22'W. Ariel Expedition. G. Sphon.

Mr. Sphon's specimen was living when collected. He reports that the animal is light yellow marked with brown.

Turritella sanguinea Reeve, 1849 (Plate 4, fig. 15)

This species does not seem to have been recognized since Reeve's original description. The type locality was cited as California.

Station: in 20-40 fathoms, off Cabo Haro, Guaymas, Sonora, Mexico. Lat. 27°50'N.; Long. 110°55'W. December 28 and 31, 1959.
B. Campbell and D. Shasky.

Our specimens match Reeve's description and figure except that he described the color as blood red while our six shells tend to be brownish red.

We had this mixed in the same lot with <u>Tur-</u> <u>ritella leucostoma</u> Valenciennes, 1832, until we noted the more inflated early whorls. With this in mind, separation was relatively simple.

Typhis lowei Pilsbry, 1931

Previously reported only as far north as the coast of Oaxaca, Mexico.

Stations:

- crab specimen, under a rock, about five feet below the surface. Puerto Ballandra, Isla Carmen, Gulf of California. Lat. 26° 01'N.; Long. 111°11'W. August 29, 1960. D. Shasky.
- in 20-40 fathoms, off Loreto, Baja California. Lat. 26°01'N.; Long. 111°18'W. August 29, 1960. Ariel Expedition. G. Sphon.

Cantharus bilirata (Reeve, 1846) (Plate 4, fig. 16)

Previous range: Galapagos and Viti (Fiji) Islands.

Stations:

- in 40-80 fathoms, off Isla Montserrate, Gulf of California. Lat. 25°39'N.; Long. 111°05'W. September 1,1960. Ariel Expedition. B. Campbell.
- in 20 fathoms, off Punta Final, San Luis Gonzaga Bay, Baja California. Lat. 29°47' N.; Long. 114°18'W. January 1, 1961. B. Campbell, D. Shasky, and G. Sphon. (Specimens taken here were fragments only.)

Nassarius howardae Chace, 1958

Recently described from San Felipe, Baja California.

Station: in 10-15 fathoms, off Cabo Haro, Guaymas, Sonora, Mexico. Lat. 27°53'N.; Long. 110°50'W. December 14, 1958. D. Shasky.

Although not mentioned in the description, this species is closely related to <u>Nassarius catallus</u> (Dall, 1908). Most apparent differences in these two species are the more acute apex, solid buff-white color and flaring outer lip in <u>N. howardae</u>.

Cancellaria obesa Sowerby, 1832

Although this is not an uncommon off-shore form, it is included here to record it as having been collected alive intertidally.

Station: intertidally, bumping in sand at night, one cove south of Puertecitos, Baja California. Lat. 30°25'N.; Long. 114°39'W. November 1959 (G. Sphon); January 1961 (D. Shasky); and February 1961 (W. Barber).

Daphnella allemani (Bartsch, 1918)

Previous record: Taboga Island, Panama.

Stations:

- in 20-40 fathoms, off Loreto, Baja California. Lat. 26°01'N.; Long. 111°18'W. August 29,1960. Ariel Expedition. D. Shasky.
- in 20 fathoms, off Punta Final, San Luis Gonzaga Bay, Baja California. Lat. 29°47' N.; Long. 114°18'W. January 1, 1961. B. Campbell, G. Sphon, and D. Shasky.

Daphnella mazatlanica Pilsbry and Lowe, 1932

This species is taken occasionally at Guaymas, but this seems to be the first record in the northern Gulf of California.

Station: intertidally, under a rock, Willard Island, San Luis Gonzaga Bay, Baja California. Lat. 29°49'N.; Long. 114°24' W. January 1, 1961. Ruth Shasky.

Clavus melea (Dall, 1919)

This seems to have been recorded only from Panama.

Stations:

- in 20-40 fathoms, off Loreto, Baja California. Lat. 26°01'N.; Long. 111°18'W. August 29, 1960. Ariel Expedition. D. Shasky.
- in 20 fathoms, off Punta Final, San Luis Gonzaga Bay, Baja California. Lat. 29°47' N.; Long. 114°18'W. January 1, 1961. B. Campbell, D. Shasky, and G. Sphon.

Mangelia finitima (Pilsbry and Lowe, 1932)

Unreported since taken by Lowe in Nicaragua.

Stations:

- crab specimen, under a rock, 6-10 feet below the surface, Saladita Bay, Guaymas, Sonora, Mexico. June 1958. D. Shasky.
- crab specimen, under a rock, intertidally, Puertecitos, Baja California. A pril 25, 1959. D. Shasky.

Tenaturris burchi (Hertlein and Strong, 1951)

Type locality: 45 fathoms off Arena Bank, Gulf of California.

Stations:

- in 20-40 fathoms, off Cabo Haro, Guaymas, Sonora, Mexico. Lat. 27°50'N.; Long. 110° 55'W. December 27 and 31,1959. D. Shasky.
- crab specimen, under a rock, 4-5 feet below surface, Puerto Ballandra, Isla Car-

men, Gulf of California. Lat. 26°01'N.; Long. 111°11'W. August 29,1960. D. Shasky.

Tenaturris carissima (Pilsbry and Lowe, 1932)

Originally described from Manzanillo, Colima, Mexico, it has recently been dredged off Isla Carmen, Gulf of California.

Station: crab specimens under rocks, intertidally, San Luis Gonzaga Bay, Baja California. December 30 and 31, 1960. B. Campbell and D. Shasky.

Tenaturris nereis (Pilsbry and Lowe, 1932)

Type locality: San Juan del Sur, Nicaragua.

This spècies is quite common in the Gulf of California as crab specimens, intertidally, under rocks. I have taken this species at the following areas: Puertecitos and San Luis Gonzaga Bay, Baja California, and Puerto Peñasco and Guaymas, Sonora, Mexico. It has been taken by H. DuShane at San Felipe, Baja California.

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